## EL129 RC Metal Detector, 27.145MHz Transmitter Operation Description

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## **Operational Description**

The Radio Frequency of the transmitter is based on standard 27.145MHz AM (Amplitude Modulation) citizen's band. It generates low power 27.145MHz AM carrier frequency via major components of CRY, R3, R6, L1, Q1, C4, C47, and C11 (*Figure 1*).

The Encoder (U1, *Figure 2*) reads input commands and modulates these commands (intelligent) with the carrier frequency (as shown in figure 1) via pin 8 (SO, U1, *Figure 2*) to the RF amplifier.

The modulated signal is passed to the final stage of RF amplifier (Figure 3), which amplifies (Q2, R7, C6, C7) the signal and then couples the signal into the antenna (ANT1) via components C8, C9, C10, L3 and L4.

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